

StencilMaster® D-Series

A perfect screen at lightning speed!

This is the goal that motivates us to develop and manufacture in Switzerland a wide range of **Computer-to-Screen (CtS) equipment** under the designation **SWISS CtS TECHNOLOGY**. The present D-Series is already the **third generation** of StencilMaster direct exposure systems.

Due to the large number of involved process steps, the conventional screen exposure is very complex, expensive and error-prone. The CtS equipment sets new standards in this field and distinguishes itself by the following advantages: Highest possible reproducibility thanks to **DIGITAL SCREEN MAKING**, absence of film and all the associated handling costs, improved printing quality, higher productivity rate, impressive flexibility and lower screen costs.

UV light source: Powerful 330W CPL UV lamp for an optimal exposure and full curing of virtually all the direct emulsions on all the mesh types.

Optics from ZEISS: high light transmission, torsion-free, stable and maximum precision

1270 dpi resolution - Standard for all the StencilMaster models

2400 dpi resolution - HR for the most stringent requirements, particularly for industrial applications

OECU (Optical Engine Control Unit): The core of the new generation. This control unit, which has been developed by our own engineers, manages all the processes related to the exposure head. **DMD's (Digital Micro-mirror Devices)** of the latest generation are controlled as efficiently as the high-precision horizontal and focusing axes.

STPrint V.4: The in-house conceived user software allows a centralized operation and control of the STM equipments – including complete IN-LINE installations supplied by Grünig.

Basic construction: This construction method based on premium massive steel is indispensable to achieve a first-class and high-precision direct exposure. A multiple axes system is configured on the basic construction. An air suspension exposure unit guarantees vibration-free movements. The unique drive system functions in horizontal direction.

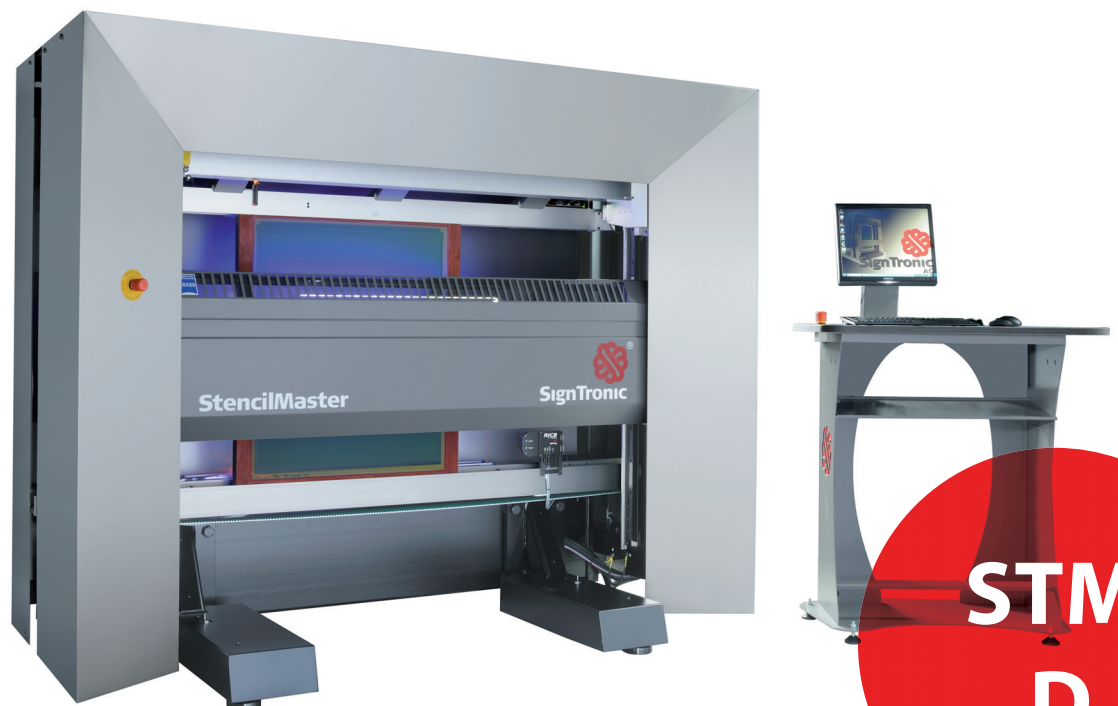
Bidirectional exposure: Thanks to the to-and-fro movement, this standard working method is extremely precise and fast.

Automatic positioning of the screens: All the StencilMasters of the D series can be loaded and unloaded from both sides. The automatic insertion feature ensures an uncomplicated handling, a fast and precise positioning as well as an optimal fastening within the installation.

Possibility of modular extension: Installation concept with the possibility to integrate all the Grünig IN-LINE equipments (loading and unloading magazines, developing, coating, air blower and drying modules).

Option RICB (Remote Image Control Board):

This equipment provides a simple and efficient means of monitoring and maintaining the exposure quality. Among others, the following checking and measuring activities are possible: Mechanical basic setting including focus measurement, incident light metering of the entire DMD with automatic mask preparation and readjustment of the light output.



Technical Specifications

StencilMaster type	Maximum frame format / exposure format	Resolution
STM-1010/HR	1400 x 1200 mm (55" x 47") / 1000 x 1000 mm (39" x 39")	1270 dpi / 2400 dpi
STM-1612/HR	2100 x 1450 mm (83" x 57") / 1600 x 1200 mm (63" x 47")	1270 dpi / 2400 dpi
STM-2316	2800 x 1800 mm (110" x 71") / 2300 x 1600 mm (91" x 63")	1270 dpi
STM-3124	3600 x 2600 mm (142" x 102") / 3100 x 2400 mm (122" x 94")	1270 dpi
STM-4126	4600 x 2800 mm (181" x 110") / 4100 x 2600 mm (161" x 102")	1270 dpi
STM-4136	4600 x 3800 mm (181" x 149,6") / 4100 x 3600 mm (161" x 142")	1270 dpi
Other StencilMaster sizes on request		
StencilMaster type	Machine measurements	Weight
STM-1010	2000 x 2400 x 1500 mm (h x w x d) / 78.7" x 94.4" x 59"	1980 kg / 4365 lbs
STM-1612	2225 x 3120 x 1500 mm (h x w x d) / 87,5" x 123" x 59"	2350 kg / 5180 lbs
STM-2316	2740 x 3800 x 1500 mm (h x w x d) / 108" x 150" x 59"	4150 kg / 9150 lbs
STM-3124	3540 x 4600 x 2090 mm (h x w x d) / 140" x 181" x 82"	4500 kg / 9920 lbs
STM-4126	3740 x 5600 x 2090 mm (h x w x d) / 148" x 221" x 82"	5350 kg / 11800 lbs
STM-4136	4740 x 5600 x 2090 mm (h x w x d) / 187" x 221" x 82"	6100 kg / 13450 lbs
Room conditions	Yellow light, dust-free, free of condensates, vibration-free floor	
Ambient temperature	18 - 24 °C / 65 - 75°F	
Rel. humidity	25 - 75 %	
Power supply	220 - 240 V / 50 - 60 Hz / 16 A	
Compressed air supply	max. 50 l/min (50 ft3/h) at 6 bar (87 psi)	
UV Light source	CPL 330 W	
Exposure speed	up to 40 m ² /h / 430 sqf/h	
Power consumption	1100 VA	
Data format	1 Bit TIFF	
IN-LINE capability	All StencilMaster D-Series can be integrated into an IN-LINE system	
Options	RIP Colorgate Production Server (SignTronic Edition) RICB (Remote Image Control Board) FirstPROOF PRO	
Customer training	An on-site customer training is included	
Service contract	Customized service contracts are available on a optional basis	
Technical data are subject to alterations. Only terms and conditions of Sign-Tronic AG are valid		

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